IN THE CLAIMS

Claim 1 (Currently Amended): An aqueous suspension comprising a component (1) comprising one or more pigments, fillers or minerals, and optionally (2) a dispersant polymer ~~to stabilise the rheology of the suspension~~, wherein,

a) said component (1) comprises a natural carbonate and the reaction product or products of said carbonate with gaseous CO_2 and ~~the reaction product or products of said carbonate with~~ one or more medium-strong to strong H_3O^+ ion-providers, ~~and~~

b) wherein said suspension has a pH greater than 7.5 measured at 20° C, and

wherein paper filled or coated by treating with said suspension, at a constant area and thickness, weighs less than paper treated with said suspension but without said reaction products,

wherein the natural carbonate is a natural calcium carbonate ($CaCO_3$), and

wherein the quantity in moles of the one or more medium-strong to strong H_3O^+ ion-~~provider~~ providers relative to the number of moles of $CaCO_3$ is in total between 0.1 and 2.

Claim 2 (Canceled).

Claim 3 (Previously Presented): The aqueous suspension according to Claim 1, wherein the strong H_3O^+ ion-provider is selected from the group consisting of hydrochloric acid, sulphuric acid and mixtures thereof, and the medium-strong H_3O^+ ion-provider is selected from the group consisting of H_2SO_3, HSO_4^-, H_3PO_4, oxalic acid and mixtures thereof.

Claim 4 (Canceled).

Claim 5 (Previously Presented): The aqueous suspension according to Claim 1, wherein the pigment, filler or mineral has a BET specific surface area, measured in accordance with the ISO 9277 Standard, of between 5 m^2/g and 200 m^2/g.

Claim 6 (Previously Presented): The aqueous suspension according to Claim 1, wherein the pigment, filler or mineral has the following characteristics:

- a mean grain diameter, measured by the sedimentation method on a Sedigraph 5100™, between 50 and 0.1 micrometers, and
- a BET specific surface area, measured in accordance with ISO 9277, ranging from 15 m^2/g to 200 m^2/g.

Claim 7 (Previously Presented): The aqueous suspension according to Claim 6 wherein the pigment, filler or mineral has the following characteristics:

- a mean grain diameter, measured by the sedimentation method on a Sedigraph 5100™, between 7 and 0.7 micrometers, and
- a BET specific surface area, measured in accordance with ISO 9277, ranging from 30 m^2/g to 60 m^2/g.

Claim 8 (Cancelled).

Claim 9 (Currently Amended): A process for treating pigments, fillers or minerals in an aqueous suspension, wherein said pigments, fillers, or minerals comprise a natural carbonate, the process comprising

treating said pigments, fillers or minerals, in an aqueous suspension, with a combination of one or more medium-strong to strong H_3O^+ ion-providers and gaseous CO_2 to provide the treated pigments, fillers or minerals,

wherein the final pH of the suspension is greater than 7.5 when measured at 20 °C,

wherein a paper filled or coated with the treated pigments, fillers, or minerals weighs less than a paper treated with a non-treated filler ~~a semi-treated natural calcium carbonate ($CaCO_3$) treated only with water whose pH, when measured at 20°C, is greater than 7.5~~, wherein both the paper treated with the treated pigments, fillers or minerals and the paper treated with the non-treated filler ~~semi-treated natural calcium carbonate ($CaCO_3$) treated only with water whose pH, when measured at 20°C, is greater than 7.5~~ have equal areas and thicknesses,

wherein the natural carbonate is a natural calcium carbonate ($CaCO_3$), and

wherein the quantity in moles of the medium-strong to strong H_3O^+ ion-providers relative to the number of moles of $CaCO_3$ is in total between 0.1 and 2.

Claim 10 (Currently Amended): The process according to Claim 9, wherein the gaseous CO_2 comes from an external CO_2 supply, [[or]] from the recirculation of CO_2, [[or]] from the continuous addition of the same or another medium-strong to strong provider of H_3O^+ ions as used in the treatment, or from an excess pressure of CO_2.

Claim 11 (Currently Amended): ~~The process according to Claim 9~~ A process for treating pigments, fillers or minerals in an aqueous suspension, comprising ~~comprising the following three stages~~:

a) ~~treatment~~ treating the pigments, fillers or minerals with one or more medium-strong to strong providers of H_3O^+ ions

b) ~~treatment~~ treating the product of a) with gaseous CO_2, ~~wherein the treatment with gaseous CO_2 is carried out is a manner selected from the group consisting of concurrent treatment during a), treatment in parallel with a), and treatment after a)~~, and

c) raising of the pH of the product of b) beyond 7.5, measured at 20° C, in a time interval after the end of stages a) and b) of between 1 hour and 10 hours without addition of a base, or immediately after the end of stages a) and b) with the addition of a base~~, stage c) being the final stage in the process~~,

wherein a paper filled or coated with the treated pigments, fillers, or minerals weighs less than a paper treated with a non-treated filler,

wherein both the paper treated with the treated pigments, fillers, or minerals and the paper treated with the non-treated filler have equal areas,

wherein the pigments, fillers or minerals comprise a natural calcium carbonate ($CaCO_3$), and

wherein the quantity in moles of the one or more medium-strong to strong providers of H_3O^+ ions relative to the number of moles of $CaCO_3$ is in total between 0.1 and 2.

Claim 12 (Previously Presented): The process according to Claim 11, wherein stages a) and b) may be repeated several times.

Claim 13 (Previously Presented): The process according to Claim 11, wherein the pH measured at 20° C is between 3 and 7.5 during stages a) and b) of the treatment and the treatment temperature is between 5° C and 90° C.

Claims 14-15 (Canceled).

Claim 16 (Previously Presented): The process according to Claim 11, wherein the duration of stage b) of the treatment is between 0 hours and 10 hours.

Claim 17 (Currently Amended): ~~The process according to Claim 9~~,

A process for treating pigments, fillers or minerals in an aqueous suspension, wherein said pigments, fillers, or minerals comprise a natural carbonate ($CaCO_3$), the process comprising

treating said pigments, fillers or minerals, in an aqueous suspension, with a combination of one or more medium-strong to strong H_3O^+ ion-providers and gaseous CO_2 to provide the treated pigments, fillers or minerals,

wherein the final pH of the suspension is greater than 7.5 when measured at 20 °C,

wherein a paper filled or coated with the treated pigments, fillers, or minerals weighs less than a paper treated with a non-treated filler, wherein both the paper treated with the treated pigments, fillers or minerals and the paper treated with the non-treated filler have equal areas and thicknesses,

wherein the pigments, fillers, or minerals comprising a natural carbonate are selected from the group consisting of a natural carbonate, a carbonate containing a dolomite, a mixture of a natural carbonate with at least one substance, a mixture of a carbonate containing a dolomite with at least one substance, and mixtures thereof; wherein the at least one substance is selected from the group consisting of talc, kaolin, titanium oxide (TiO_2), magnesium oxide (MgO), a mineral inert towards medium-strong H_3O^+ ion-providers, and mixtures thereof, and

wherein the quantity in moles of the one or more medium-strong to strong providers of H_3O^+ ions relative to the number of moles of $CaCO_3$ is in total between 0.1 and 2

~~of mixtures thereof with talc, mixtures thereof with kaolin, mixtures thereof with titanium oxide (TiO_2), magnesium oxide (MgO), and other minerals which are inert towards medium-strong to strong H_3O^+ ion providers~~.

Claim 18 (Currently Amended): The process according to Claim 17, comprising the natural carbonate, wherein the natural carbonate is a marble, a calcite or a chalk.

Claim 19 (Currently Amended): The process according to Claim 9, wherein the strong provider or providers of H_3O^+ ions is hydrochloric acid or sulphuric acid and the medium-strong provider or providers of H_3O^+ ions is selected from the group consisting of H_2SO_3, HSO_4^-, H_3PO_4, [[and]] oxalic acid, and combinations thereof.

Claim 20 (Currently Amended): The process according to Claim 11, further comprising the addition of a dispersing agent, and optionally a reconcentration ~~stage~~, after c) ~~the third stage of treatment~~.

Claim 21 (Currently Amended): A treated aqueous suspension comprising treated pigments, fillers, or minerals,

wherein the treated pigments, fillers, or minerals comprise a natural carbonate,

wherein the natural carbonate is a natural calcium carbonate ($CaCO_3$) selected from the group consisting of a natural calcium carbonate, a natural calcium carbonate containing a dolomite, a mixture of a natural calcium carbonate with at least one substance, a mixture of a natural calcium carbonate containing a dolomite with at least one substance, and mixtures thereof; wherein the at least one substance is selected from the group consisting of talc,

kaolin, titanium oxide (TiO_2), magnesium oxide (MgO), a mineral inert towards medium-strong H_3O^+ ion-providers, and mixtures thereof; and

wherein the treated aqueous suspension is produced by a process comprising

treating said pigments, fillers or minerals, in an aqueous suspension, with a combination of one or more medium-strong to strong H_3O^+ ion-providers and gaseous CO_2 to provide the treated pigments, fillers or minerals,

wherein the final pH of the suspension is greater than 7.5 when measured at 20 °C,

wherein a paper filled or coated with the treated pigments, fillers, or minerals weighs less than a paper treated with a non-treated filler,

wherein both the paper treated with the treated pigments, fillers or minerals and the paper treated with the non-treated filler have equal areas and thicknesses,

wherein the quantity of moles of the medium-strong to strong H_3O^+ ion-providers relative to the number of moles of $CaCO_3$ is in total between 0.1 and 2 ~~of Claim 9~~.

Claims 22-23 (Cancelled).

Claim 24 (Currently Amended): The ~~composition~~ aqueous suspension of Claim 1, further comprising a dispersant polymer.

Claim 25 (Currently Amended): A process for coating paper comprising applying the aqueous ~~suspensions~~ suspension as claimed in Claim 1 onto a sheet of paper.

Claim 26 (Previously Presented): A process for making a paper sheet with a paper filler,

the process comprising:

diluting a wood and fibre pulp or paste, with water, in the presence of the aqueous suspension of Claim 1 to form a mixture,

agitating the mixture, and

forming the paper sheet from the mixture.

Claim 27 (Previously Presented): The process of Claim 26, further comprising, after forming the paper sheet, drying the formed paper sheet.

Claim 28 (Previously Presented): The process as claimed in Claim 26, further comprising, after agitating the mixture, adding a retaining agent.

Claim 29 (Currently Amended): A ~~composition comprising the aqueous suspension as claimed in Claim 1 and a~~ paint ~~or a coating~~ comprising the aqueous suspension of Claim 1 and a latex.

Claim 30-33 (Canceled).

Claim 34 (Currently Amended): A process for manufacturing a sheet of paper or board,

the process comprising:

diluting a pulp or paste, with water, in the presence of the aqueous suspension of Claim 1 to form a mixture,

agitating the mixture, and

forming the paper sheet or board from the mixture,

wherein said paper sheet or board ~~comprise~~ comprises fibres not originating from wood.

Claim 35 (Cancelled).

Claim 36 (Currently Amended): A method of printing comprising digitally applying ink onto the paper or board, wherein the paper or board is made by a process comprising

diluting a pulp or paste, with water, in the presence of the aqueous suspension of Claim 1 to form a mixture,

agitating the mixture, and

forming the paper sheet or board from the mixture,

wherein said paper sheet or board comprises fibres not originating from wood ~~claimed in Claim 35~~.

Claim 37 (Currently Amended): The aqueous suspension claimed in Claim 1 wherein the natural calcium carbonate is selected from the group consisting of marble, calcite, chalk and carbonate containing dolomite.

Claim 38 (Previously Presented): The aqueous suspension according to Claim 1, wherein the quantity in moles of the medium-strong to strong H_3O^+ ion-providers relative to the number of moles of $CaCO_3$ is in total between 0.25 and 1.

Claim 39 (Previously Presented): The aqueous suspension according to Claim 1, wherein the pigment, filler or mineral has a BET specific surface area, measured in accordance with the ISO 9277 Standard, of from 20 m^2/g to 80 m^2/g.

Claim 40 (Previously Presented): The aqueous suspension according to Claim 1, wherein the pigment, filler or mineral has a BET specific surface area, measured in accordance with the ISO 9277 Standard, of from 30 m^2/g to 60 m^2/g.

Claim 41 (Previously Presented): The aqueous suspension according to Claim 6, wherein the pigment, filler or mineral presents the following characteristics:

- a mean grain diameter, measured by the sedimentation method on a Sedigraph 5100™, between 25 and 0.5 micrometers, and
- a BET specific surface area, measured in accordance with ISO 9277, ranging from 20 m^2/g to 80 m^2/g.

Claim 42 (Currently Amended): The process as claimed in Claim 10, wherein the gaseous CO_2 has a pressure [[is]] of from 0.05 to 5 bars.

Claim 43 (Currently Amended): The process as claimed in Claim 11, wherein ~~the raising of the pH beyond 7.5, measured at 20° C, in a time interval after the end of stages a) and b) of between 1 hour and 5 hours without addition of a base, or immediately after the end of stages a) and b) with the addition of a base, stage~~ c) [[being]] is the final stage in the process.

Claim 44 (Previously Presented): The process as claimed in Claim 13 wherein the treatment temperature is between 45 and 60°C.

Claim 45 (Previously Presented): The process as claimed in Claim 16 wherein the duration of stage b) of the treatment is between 2 hours and 6 hours.

Claim 46 (Currently Amended): A ~~composition comprising a~~ paint ~~or coating and~~ comprising the aqueous suspension ~~dispersion~~ of Claim 24 and a latex.

Claim 47 (Previously Presented): A process for coating paper comprising applying the aqueous suspension as claimed in Claim 21 onto a sheet of paper.

Claim 48 (Cancelled).

Claim 49 (Previously Presented): A process for coating and manufacturing a sheet of paper comprising coating and impregnating, in any order, a sheet of paper with the aqueous suspension claimed in Claim 21 wherein said aqueous suspension acts as a paper filler and as a preparation for coating and pigmentation of the surface of the paper.

Claims 50-60 (Cancelled).

Claim 61 (Currently Amended): A process for manufacturing a sheet of paper or board,

the process comprising:

diluting a pulp or paste, with water, in the presence of the treated aqueous solution ~~pigment, filler, or mineral~~ of Claim 21 to form a mixture,

agitating the mixture, and

forming the sheet of paper or board from the mixture.

Claim 62 (New): A process for treating pigments, fillers or minerals in an aqueous suspension, comprising

a) treating the pigments, fillers or minerals with one or more medium-strong to strong providers of H_3O^+ ions and gaseous CO_2,

and

b) raising of the pH of the product of a) beyond 7.5, measured at 20° C, in a time interval after the end of a), of between 1 hour and 10 hours without addition of a base, or immediately after the end of a) with the addition of a base.

Claim 63 (New): The process according to Claim 62, wherein a)

and b) may be repeated several times.

Claim 64 (New): The process according to Claim 62, wherein the pH measured at 20° C is between 3 and 7.5 during a) and the treatment temperature is between 5° C and 90° C.

Claim 65 (New): A sheet or board produced by the process of Claim 61.

Claim 66 (New): A method of printing comprising digitally applying ink onto the paper or board claimed in Claim 65.

Claim 67 (New): The aqueous suspension of Claim 1, comprising the at least one medium-strong H_3O^+ ion-provider.

Claim 68 (New): The aqueous suspension of Claim 67, wherein the at least one medium-strong H_3O^+ ion-provider is selected from the group consisting of hydrochloric acid, sulphuric acid and mixtures thereof.

Claim 69 (New): The aqueous suspension of Claim 1, comprising the at least one strong H_3O^+ ion-provider.

Claim 70 (New): The aqueous suspension of Claim 69, wherein the at least one strong H_3O^+ ion-provider is selected from the group consisting of H_2SO_3, HSO_4^-, H_3PO_4, oxalic acid and mixtures thereof.